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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/583,368

06/19/2006

Matthieu Richard

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EXAMINER

BYTHROW, PETER M

ART UNIT

PAPER NUMBER

3662

MAIL DATE

DELIVERY MODE

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PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/583,368	<b>Applicant(s)</b> RICHARD ET AL.	
	<b>Examiner</b> Peter M. Bythrow	<b>Art Unit</b> 3662	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-34 is/are pending in the application.
- 4a) Of the above claim(s) 1-17 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 18-34 is/are rejected.
- 7) ☒ Claim(s) 33 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 19 June 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)            | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | Paper No(s)/Mail Date. ____.                                      |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date ____.  | 6) <input type="checkbox"/> Other: ____.                          |

## **DETAILED ACTION**

### ***Priority***

1. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

### ***Information Disclosure Statement***

2. The information disclosure statements filed 06/19/2006 have been entered and considered. Initialed copies of the PTO-1449 by the Examiner are attached.

### ***Oath/Declaration***

3. The oath filed on 06/19/2006 is acceptable.

### ***Drawings***

4. The drawings filed on 06/19/2006 are acceptable.

### ***Claim Objections***

5. Claims 33 are objected to because of the following informalities: There are two instances of claims numbered "33". The second instance of claim 33 will be referred to as "claim 34" for the purposes of this action. Appropriate correction is required.

### ***Claim Rejections - 35 USC § 103***

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

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(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claim 18 is rejected under 35 U.S.C. 103(a) as being unpatentable over

Huguenin et al. (US 5227800).

**As to Claim 18**, Huguenin discloses a device for detecting non-metallic objects located on a human subject (abstract), comprising:

A source (figure 2 element 180) for generating a microwave signal in a known state of polarization (column 8 lines 7-18), said signal illuminating the target at a non-zero angle of incidence (figure 2),

A transmitting device (figure 2 element 163), said transmitting device illuminating an area of the body of said human subject (figure 2)

A receiving device (figure 2 element 166)

A structure bearing the receiving device and the transmitting device (column 7 lines 67-68 and column 8 lines 1-6)

Means for analyzing said reflected signal comprising means for determining the energy (column 8 lines 63-65) and polarimetric characteristics of the signal (column 22 lines 25-32)

Means for determining from said characteristics the presence of objects (column 21 lines 63-65 and column 22 lines 1-14)

Means for warning of said presence (column 9 lines 18-20)

Huguenin does not teach the use of antenna horns. However, the use of antenna horns is well known in the art. It would have been obvious to modify Huguenin, such that the device comprised horns, as it would cause no new or unexpected results.

**As to Claim 19**, bi-static transceivers, that is devices which receive and transmit from the same antenna, are well known in the art. It would have been obvious to modify Huguenin, such that the device comprised means for sending and receiving from the same antenna, as it would cause no new or unexpected results.

**As to Claim 20**, Huguenin discloses linking the source for generating the microwave signal with the analysis means (column 9 lines 29-39).

**As to Claim 21**, means for generating a signal at variable frequencies are well known in the art. It would have been obvious to modify Huguenin such that the device comprised means for generating a signal at variable frequencies, as it would cause no new or unexpected results.

**As to Claim 22**, Huguenin discloses the source comprising means for sending a linearly polarized signal (column 5 lines 40-43), and the signal being oriented at approximately 45 degrees from the average plane of incidence (column 8 lines 14-18 and figure 2).

**As to Claim 23**, Huguenin discloses using circularly polarized signals (column 15 lines 1-11).

**As to Claim 24**, Huguenin discloses the source and transmitting antennas comprising means for sending different combinations of parallel and perpendicular polarizations varying over time (column 9 lines 49-62).

**As to Claim 25**, Huguenin teaches the first means of measuring the polarimetric characteristics of the reflected signal allowing the main orientation to be allowed (figure 10 element 43 and column 13 lines 49-58).

**As to Claim 26**, Huguenin discloses the first means comprising a microwave polarizer disposed in front of an intensity detector (column 13 lines 49-58) and means of rotating said polarizer (column 8 lines 51-59).

**As to Claim 27**, rotation motors, such as direct current motors and stepper motors are well known in the art. It would have been obvious to modify Huguenin such that the rotation means comprised a direct current motor or stepper motor, as it would cause no new or unexpected results.

**As to Claim 28**, orthomode transducers are well known in the art for combining or separating plural microwave signal paths. It would have been obvious to modify Huguenin such that the first means comprised an orthomode detecting horn, as it would cause no new or unexpected results.

**As to Claim 29**, Huguenin discloses the source comprising means for sending a linearly polarized signal (column 5 lines 40-43), and the signal being oriented at approximately 45 degrees from the average plane of incidence (column 8 lines 14-18 and figure 2). The use of antenna horns is well known in the art. It would have been obvious to modify Huguenin, such that the device comprised horns, as it would cause no new or unexpected results.

**As to Claim 30**, Huguenin discloses the structure being a security gate of a sufficient size to allow a human subject to pass through (column 7 lines 67-68 and column 8 lines 1-6)

**As to Claim 31**, Huguenin discloses the structure being portable and comprising a mechanical part on which are disposed the sending and receiving devices and a handle (column 9 lines 40-48).

**As to Claim 32**, bi-static transceivers, that is devices which receive and transmit from the same antenna, are well known in the art. It would have been obvious to modify Huguenin, such that the device comprised means for sending and receiving from the same antenna, as it would cause no new or unexpected results.

8. Claim 33 is rejected under 35 U.S.C. 103(a) as being unpatentable over Huguenin et al. (US 5227800) as applied to claim 32 above, and further in view of Berman (US 6525329).

**As to Claim 33**, Berman discloses a handheld device for detecting hidden objects (abstract) comprising a handheld device in the shape of a parallelogram having two sensors disposed at two corners of the parallelogram (figure 5). It would have been obvious to modify Huguenin in view of Berman such that there were four sensors disposed at four corners of the parallelogram as it would cause no new or unexpected results.

9. Claim 34 is rejected under 35 U.S.C. 103(a) as being unpatentable over Huguenin et al. (US 5227800) as applied to claim 18 above, and further in view of Breed et al. (US 7415126).

**As to Claim 34**, Breed discloses a system which analyzes biometric information of a vehicle occupant (abstract), and discloses the use of temperature and temperature variations as viable biometric criteria for identifying persons (column 19 lines 31-34). It would have been obvious to modify Huguenin such that the detection device comprised means for measuring the temperature of a person, as taught by Breed, in order to identify temperature differences that might be indicative of a concealed weapon.

### ***Conclusion***

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Peter M. Bythrow whose telephone number is (571)270-1468. The examiner can normally be reached on Mon-Fri, 8AM-5:30PM, Alt Fri, EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thomas H. Tarcza can be reached on 571-272-6979. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.



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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Peter Bythrow  
Examiner  
Art Unit 3662

/Thomas H. Tarcza/  
Supervisory Patent Examiner, Art Unit 3662